Amendments to the Claims:

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application. Material to be inserted is in **bold and underline**, and material to be deleted is in ~~strikeout~~ and/or in [[double brackets]] if the deletion would be difficult to see.

LISTING OF CLAIMS:

1 – 8. (Cancelled)

9.   (Currently amended) Method for operating an engine with a first set of cylinders and a second set of cylinders, the method comprising:

operating the first set of cylinders combusting a lean or stoichiometric air-fuel mixture and operating the second set of cylinders with substantially no injected fuel while inducting air; ~~and~~

mixing gases exhausted from the first and second sets of cylinders and treating the mixed exhaust gases in an emission control device capable of storing NOx in excess oxygen conditions; and

transitioning to combusting a lean air-fuel mixture in said second set of cylinders.

10.   (Previously presented) The method of claim 9 wherein after said transition, both said first and second set of cylinders are operated to combust a lean air-fuel mixture.

11.   (Previously presented) The method of claim 10 wherein said transition is requested based on a desired engine output.

12.   (Previously presented) The method of claim 11 wherein said desired engine output is based on a request from an operator of a vehicle coupled to the engine.

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13.   (Previously presented) The method of claim 12 wherein said desired engine output is a desired engine torque.

14.   (Previously presented) The method of claim 13 wherein said desired engine output represents an increase in said desired engine torque.

15.   (Currently amended) A method for operating an engine, the method comprising:

in response to a decrease in requested engine output, operating a first group of cylinders without injected fuel and a second group of cylinders to combust a lean air-fuel mixture;

transitioning to combusting a lean air-fuel mixture in said first group of cylinders;

mixing ~~gasses exhaust~~ **gases exhausted** from the first and second cylinders; and

treating the mixed exhaust gasses in an emission control device capable of storing NOx in excess oxygen conditions.

16.   (Previously presented) The method of claim 15 wherein said requested engine output is a requested engine output torque.

17.   (Previously presented) The method of claim 16 wherein said requested engine output represents a decrease in said desired engine torque.

18.   (Currently amended) A method for controlling an engine having at least a first and second group of cylinders, comprising:

operating the engine in a first mode wherein the first cylinder group operates with air and substantially no injected fuel and the second cylinder group operates to combust air and injected fuel; ~~and~~

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<u>mixing gases exhausted from the first and second sets of cylinders</u> <u>and treating the mixed exhaust gases in an emission control device</u> <u>capable of storing NOx in excess oxygen conditions; and</u>

transitioning the engine to operating in a second mode wherein both the first cylinder group and the second cylinder group operate to combust air and injected fuel, combustion in both said first and second cylinder group being lean of stoichiometry.

19. (Previously presented) The method recited in claim 18 wherein combustion in said second cylinder group in said first mode is near stoichiometric.

20. (Previously presented) The method recited in claim 19 wherein said transition is performed in response to a request to increase engine torque.

21. (Currently amended) A method for operating an engine with variable valve operation, the engine having a first group of cylinders and a second group of cylinders, the method comprising:

In response to a decrease in requested engine output, operating the first group of cylinders without injected fuel and the second set of cylinders to combust a lean air-fuel mixture;

adjusting variable valve operation of the first group of cylinders differently from variable valve operation of the second group of cylinders;

mixing ~~gasses~~ ~~exhaust~~ <u>gases exhausted</u> from the first and second cylinders; and

treating the mixed exhaust gasses in an emission control device capable of storing NOx in excess oxygen conditions.

22. (Currently amended) A system comprising:

an engine having variable ~~valve operation~~ <u>cam timing</u>, the engine having a first group of cylinders and a second group of cylinders; ~~and~~

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an emission control device receiving a mixture of exhaust gases discharged from the first and second groups of cylinders, wherein the emission control system is capable of storing NOx in excess oxygen conditions; and

a controller for operating said first group of cylinders with air and substantially no injected fuel, and operating said second group of cylinders to combust a mixture of air and injected fuel, wherein the controller further adjusts valve operation of the first group of cylinders differently from valve operation of the second group of cylinders.

23.   (Cancelled)

24.   (Previously presented) A system comprising:

an engine having variable valve operation, the engine having a first group of cylinders and a second group of cylinders; and

a controller for operating said first group of cylinders with air and substantially no injected fuel, and operating said second group of cylinders to combust a mixture of air and injected fuel, wherein said mixture is lean of stoichiometry.

25.   (Cancelled)

26.   (Cancelled)

27.   (Cancelled)

28.   (New) The method recited in claim 18 where:

the engine is operated with variable valve operation; and

the variable valve operation of the first group of cylinders is adjusted differently from the variable valve operation of the second group of cylinders.

29.   (New) The method recited in claim 9 where:

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the engine is operated with variable cam timing; and

the variable cam timing of the first group of cylinders is adjusted differently from the variable cam operation of the second group of cylinders.

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